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No. 1230

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MAJOR CROP PROGRESS AND WEATHER REPORTING

SEED PROBLEMS IN VOLGOGRADSKAYA OBLAST DISCUSSED

Moscow PRAVDA in Russian 19 Feb 80 p 1

[Article by V. Goncharov, PRAVDA correspondent and V. Maksimov, department head of Editorial Board for VOLGOGRADSKAYA PRAVDA newspaper: "You Reap What You Sow"]

[Text] The snow which fell so generously in Volgogradskaya Oblast disrupted somewhat the usual work rhythm of the farmers. The grain growers are glancing more and more often at the calendar. Only a short amount of time remains before the commencement of sowing. The farmers in Volgogradskaya Oblast must plant grain crops on an area of almost 2.5 million hectares. The future harvest is greatly dependent upon the type of seed place in the soil.

"What will we use for sowing purposes? Such was the question we asked ourselves even prior to the harvest" related the director of the Dinamo Sovkhoz in Nekhayevskiy Rayon, V. Anikin, "at the time, we selected the best tracts from which to take the wheat and barley "for breeding purposes."

Outstanding seed is available at the kolkhozes imeni Komintern and Krasnoye Znamya in Yelanskiy Rayon, at the Kolkhoz imeni K. Marks in Kikvidzenskiy Rayon and at the sovkhozes Kolobovskiy and Parizhskaya Kommun in Leninskiy and Staropoltavskiy rayons respectively.

"The majority of the oblast's kolkhozes and sovkhozes have procured regionalized high quality seed for their spring crops" stated a department chief of the agricultural administration of the oblast executive committee, I. Varakuta, "there are more than 509,000 tons of such seed in the storehouses. And 99.9 percent of this amount is quality-standardized. Many have achieved high indices as a result of additional processing of the grain.

For example, let us take the Sebryakovskiy Sovkhoz in Mikhaylovskiy Rayon. Initially the specialists classified 10,000 quintals of barley as being of 2d class quality. Subsequently the barley was subjected to additional processing, until finally it was raised to the best condition.

However, by no means has good seed been prepared in all areas. At the Plamya Revolyutsii and Lebyazh'ya Polyana sovkhozes in Sredneakhtubinskiy Rayon, large batches of wheat and barley became badly contaminated. The task of purifying the batches and raising their quality constituted no great difficulty since the required equipment was available. Nevertheless, this important work was left, as the saying goes, "until later."

Here the kolkhoz and sovkhoz leaders and specialists were primarily at fault. At the same time, the workers attached to agricultural organs view this type of neglect with detached interest. The farmers in Kotel'nikovskiy and Podtelkovskiy rayons have seed supplies which include less than 50 percent of their own seed. Meanwhile, strong reserve supplies of seed have been created in Kalachevskiy, Novoanninskiy and Mikhaylovskiy rayons. The solution is obvious. The exchange of grain must be accelerated.

Large tracts are still being sown throughout the oblast using varieties which are not the most productive, varieties which produce grain of low-grade quality.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

PRE-SOWING PREPARATIONS IN LATVIAN SSR DISCUSSED

Riga SOVETSKAYA LATVIYA in Russian 9 Feb 80 p 1

[Article by V. Alekseyev, deputy chief of Main Administration of Farming of the Ministry of Agriculture for the Latvian SSR: "In Preparation for Spring"]

[Text] Compared to last year, when the republic's farmers, owing to unfavorable weather conditions, had to carry out a large volume of plowing work and other agrotechnical measures during the spring period, the situation this year is entirely different. The soil for the spring crops was plowed in the autumn. The sowing plan for the winter crops was carried out completely and these crops occupy almost 276,000 hectares. An inspection has revealed that the winter crops are in fine condition at the present time. All of the kolkhozes and sovkhozes have the required amounts of seed at their disposal.

Thus, during this final year of the five-year plan, the spring sowing can be carried out rapidly and this will provide a reliable guarantee for obtaining high yields for the grain, potato, beet and forage crops.

Prior to the commencement of the sowing period, the seed and planting stock must be fully prepared and improved to high planting conditions. However, some farms are proceeding all too slowly in carrying out this work. Prior to the 1st of February, 71 percent of the grain crop seed in the republic was quality-standardized and at kolkhozes and sovkhozes in Ludzenskiy, Madonskiy, Balvskiy rayons -- 40-46 percent. Great importance is being attached to the seed of perennial grasses and yet only 62.5 percent of such seed is quality-standardized. An urgent requirement exists for carrying out the chemical disinfection of seed in all areas and for organizing an interfarm and interrayon exchange of seed.

Prior to this current spring period, the farms had laid away sufficient amounts of potatoes -- at the rate of approximately 6 tons per hectare. The main task at the present time consists of protecting the seed tubers. This requires that the clamps be checked and that sorting work be organized in the storehouses. The potatoes must not be allowed to spoil.

As is well known, organic fertilizers play an important role in the campaign to achieve high yields. We possess the equipment and machine operator personnel required for carrying out this work in a more intensive manner. By 1 February, the quarterly plan for delivering organic fertilizer had been fulfilled throughout the republic by 43 percent, in Ventspilsskiy Rayon -- by 62 percent and in Kuldigskiy and Saldusskiy rayons -- by 52-58 percent. No delays can be tolerated in the movement of fertilizer out onto the fields. Indeed, it is impossible to go out onto the farms during the second half of March. Top dressings should be applied to the winter crops during the best periods and this involves a large volume of work.

The equipment repair work is proceeding at a maximum tempo. The schedule for repair work is being adhered to. The machine operators are undertaking every possible measure in the interest of ensuring that all machines perform in a faultless manner during the sowing period.

Zonal conferences are being held this month throughout the republic for farm leaders and specialists and workers attached to agricultural administrations and reports and election meetings and also production meetings are being conducted at kolkhozes and sovkhozes. In analyzing the status of affairs on the farms, special emphasis is being placed upon the preparations being made for spring. In addition to agrotechnical measures, special attention must be given here to personnel training and to organizing the sowing work.

This year the task consists of obtaining high yields for all of our agricultural crops. We are enjoined to do this by the recently adopted decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Additional Measures for Preparing for and Carrying out Spring Field Operations During 1980."

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MAJOR CROP PROGRESS AND WEATHER REPORTING

FIELD MOISTURE CONDITIONS IN LATVIAN SSR REVIEWED

Riga SOVETSKAYA LATVIYA in Russian 15 Mar 80 p 2

[Article by L. Borisovskaya, agricultural meteorologist: "Weather and Crops"]

[Text] The month of March is at hand. The time is approaching when the winter crops will emerge from the dormancy stage. On the basis of data accumulated over a period of many years, this should take place in the middle of April.

Cold weather marked by snowstorms and an abundance of snow prevailed during February. The height of the snow cover increased to 30-40 centimeters and on the Vidzemskaya and Aluksnenskaya elevations -- to 50-60 centimeters, or 2-3 times in excess of the norm. The snow cover reliably protects the winter crops against freezing, but if the depth of the frozen soil is shallow the plants may perish beneath the snow.

Such conditions have appeared in many rayons and mainly in the eastern rayons where the duration of a deep snow cover is two and a half months and the depth of the frozen soil is shallow. Here the minimal soil temperature at the tillering depth (3 centimeters) ranges from 0 to -4 degrees.

At the end of February and in early March, inspections were carried out on the condition of the winter crops on an area of approximately 23,000 hectares. They revealed that the plants endured the winter in a satisfactory manner and that no extensive plant loss occurred. Nevertheless, an increase did take place in the overall area of sparse plantings. A raised degree of sparse plantings was observed in the case of 13 percent of the winter rye inspected and for winter wheat -- 19 percent. Last year at this time the figures were 36 and 42 percent respectively.

During the first 10 days of March, the snow cover out on the fields did not change substantially, the depth of the frozen soil decreased somewhat and on 10 March, in a majority of rayons, it amounted to 20-40 centimeters in the northern and 50-70 centimeters in the southeastern rayons.

It is expected that water will stagnate out on the fields during the spring period. This usually leads to an increase in sparse plantings as a result of drenching. This is why thaw waters must be removed from the fields. The thawing of a large amount of snow usually increases the intrasoil runoff of water and this leads to a washing out of the mineral nutrients. Under such conditions, a spring top dressing for the winter crops should ideally be provided in two applications.

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MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

MASS SOWING OF CORN--Chimkent, 5 Apr--Following an abundant amount of precipitation, the sowing units have been moved out onto the feed fields of southern Kazakhstan, which have not been warmed by the spring sun. The oblast's sovkhozes and kolkhozes were the first in the republic to commence the mass sowing of corn. It will be planted on 1,000 hectares on the bottom land of the Syr Dar'ya River and in the Turkestan Steppe. This year the mechanized detachments have vowed to obtain 400 quintals of fodder per hectare -- almost 100 quintals more than the plan. This will make it possible to place approximately 100,000 additional tons of silage in the trenches. In response to the decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Additional Measures for Increasing the Production of Coarse and Succulent Feed in 1980 and Raising Its Quality," the oblast's farmers are expanding their companion sowings of forage crops by five times compared to last year. Perennial grasses or fodder beets are being sown in a mixture with corn and with alfalfa -- Sudan grass, which increases the hay yield by twofold. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 6 Apr 80 p 1] 7026

NEW STRONG WHEAT VARIETIES--Kokchetav--The Tselinnaya-21 and Omskaya-9 new strong wheat varieties will furnish a substantial increase in yields. This year, they are being regionalized on farms throughout the oblast. State tests have shown that both varieties surpass, in terms of cropping power, the extensively used Saratovskaya-29 wheat by an average of 2-4 quintals of grain per hectare. The new varieties are resistant against drought conditions, diseases and pests. The Stepnoishimskaya and Ruzayevka experimental stations have shipped large batches of the Tselinnaya-21 and Omskaya-9 seed to sovkhozes and kolkhozes throughout the oblast. [Text] [Moscow GUDOK in Russian 4 Apr 80 p 1] 7026

INCREASE IN FEED PRODUCTION--Dushanbe--This year the farms of Tadzhikistan have resolved to increase their feed production by one fourth. The principal increase in forage will be provided by alfalfa, the areas of which will be increased by 36,000 hectares. The kolkhozes and sovkhozes in the piedmont rayons have commenced the mass sowing of this crop. Alfalfa is being sown throughout the republic in a mixture with corn, sorghum and other crops. As a result, the quantity of feed being obtained from each hectare will double during the same year in which it is sown. [Text] [Moscow GUDOK in Russian 4 Apr 80 p 1] 7026

KIRGIZ SSR COTTON PLAN--Osh, 5 Apr--The farmers of Kirgizia, who have commenced their sowing operations, are planting their cotton seed on the basis of scientifically sound plans. This will ensure an optimum plant density on each "elevel" of the country's highest altitude plantations. Combined with the extensive use of denuded seed having a raised germinative capacity, this technology is making it possible to make up for the time lost owing to poor weather. During the final year of the five-year plan, the republic's farmers have vowed to supply the homeland with 210,000 tons of cotton. An increase in cropping power will be achieved by further improving the culture of farming and by introducing highly productive varieties into operations on an extensive scale, varieties which furnish up to 60 quintals of raw cotton per hectare. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 6 Apr 80 p 1] 7026

UZBEKISTAN COTTON PRODUCTION--The irrigated lands of Central Asia represent a tremendous resource of the country. It is a unique region in which an extremely valuable agricultural crop is grown, a crop which ranks in importance with metal, fuel and grain insofar as the country's economy is concerned. In 1979, a record amount of cotton was harvested in the USSR -- 9.16 million tons of raw cotton, including 5.76 million tons in Uzbekistan. This year the plans call for an even greater amount to be produced. In the process, special attention is to be given to improving the quality of the output and increasing the deliveries of fine-fibred varieties of cotton. The intensive cotton-alfalfa crop rotation plans developed by the republic's scientists and specialists are making it possible to solve this task successfully. In the recent greeting extended by Comrade L.I. Brezhnev to the agricultural workers in Tashkentskaya Oblast, emphasis was placed upon the fact that the country's rice growing regions offer tremendous reserves for the development of livestock breeding. [Text] [Moscow IZVESTIYA in Russian 15 May 80 p 2] 7026

TURKMEN SSR SOWING OPERATIONS--Turkmen SSR--It has been some time since such a late spring was recorded in the Turkmen SSR. Cold weather has delayed by almost 1 month the planting of vegetable seedlings in the open ground and the sowing of cotton and other spring crops must now be carried out at the same time. In the situation that now prevails, special importance is attached to ensuring that efficient work is performed by all teams engaged in carrying out the spring field work and that all human and equipment resources are maneuvered in a skilful and efficient manner. And the farmers on a majority of the republic's farms are successfully coping with this task. The workers in the southern oblasts were the first to commence their sowing campaign. The vegetable growers in Gyaurskiy, Ashkhabadskiy and Geok-Tepinskiy rayons have reported that they have completed their planting of early vegetables on the planned areas. The front of the sowing work being carried out on the principal fields of the Turkmen SSR -- the cotton fields -- is expanding with each passing day. The republic's agricultural workers, having established their urgent Leninist watch and by way of solving the tasks assigned by the July (1978) Plenum of the CPSU Central committee, have promised to increase their gross output volume this year by 5.5 percent and to produce no less than 1.21 million tons of raw cotton (including 240,000 tons consisting of fibre of the highest purity), 340,000 tons of grain, 440,000 tons of vegetables and melons and large quantities of fruit and grapes. [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 6 Apr 80 p 1] 7026

AZERBAIJAN COTTON SOWING--Baku, 5 Apr--The farmers of Azerbakjan have commenced their mass sowing of cotton. The cotton growers in the Muganskaya, Mil'skaya, Karabakhskaya and Shirvanskaya steppe regions have moved hundreds of sowing units out onto the fields. The sowing is being carried out using 1st class seed from the new regionalized 3038 and 3312 varieties of cotton, developed by the Azerbaijan plant breeders. They are completely replacing the variety which has been in use up until this time, since they surpass it in terms of both cropping power and fibre yield. Mineral fertilizers and herbicides are being applied simultaneously with placing the seed in the soil. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 6 Apr 80 p 1] 7026

CORN SOWING COMMENCES--Baku--Immediately following their alfalfa and fodder root crops, the farmers of Azerbaijan commenced sowing corn, which this year will be grown on 100,000 hectares. The corn is being sown by teams which have been created in all of the steppe and piedmont rayons in accordance with the Ipatovo method. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 11 Apr 80 p 1] 7026

AGRICULTURAL AVIATION--Groznyy--More than 10,000 hectares of winter crops have been treated since the beginning of the year by crews attached to Groznyy agricultural aviation. The aircraft are flying today in the skies over Dagestan, the North Ossetian ASSR and the Kabardino-Balkarsk ASSR. Overall, the pilots of the Checheno-Ingush ASSR will furnish assistance to the grain growers this year in the form of treating approximately 1 million hectares of land in the north Caucasus and Central Asia. [Text] [Moscow IZVESTIYA in Russian 15 Feb 80 p 1] 7026

ORGANIC FERTILIZATION OF FIELDS--Yoshkar-Ola--A fertility detachment at the Za Mir Sovkhoz has over-fulfilled by more than three times its task for moving organic fertilizers out onto the fields. In all, more than 3.5 million tons of compost -- one and a half times more than last year -- were supplied to the fields in the Mari ASSR during the autumn and winter period. [Text] [Moscow GUDOK in Russian 18 Mar 80 p 1] 7026

TWO CORN HARVESTS--Termez--Green rows of seedlings have appeared on the corn fields of the virgin land Sovkhoz imeni Khamid Alimdzhan. The early sowing will make it possible to obtain the first harvest here in June and thereafter the seed for a second harvest of corn for silage can be placed in the soil. This year the sowing of this crop in Surkhandar'inskaya Oblast is being expanded by almost one and a half times, with the plans calling for a majority of the fields to be used for grain purposes. Combined sowings of corn and fodder beets have been employed on an extensive scale. [Text] [Moscow GUDOK in Russian 18 Mar 80 p 1] 7026

ORGANIC FERTILIZER APPLICATIONS--Stavropol'--The Stavropol' machine operators have already moved approximately 8 million tons of organic fertilizer out onto the fields in behalf of this year's harvest. Based upon its nitrogen and phosphorus content, this is equivalent to 20 freight cars filled with industrially produced granules. The kolkhozes and sovkhozes in Izobil'nenskiy, Kochubeyevskiy and Predgornyy rayons were the first in the kray to fulfill the task established for the winter and spring period -- apply a top dressing of fertilizer to the arable land. At the moment, the prolonged period of cold weather is preventing the farmers from sowing their spring crops and thus the decision has been made to move more than 1 million tons of additional organic fertilizer out onto the fields. [Text] [Moscow GUDOK in Russian 18 Mar 80 p 1] 7026

HYBRID CORN SEED PRODUCTION--Alma-Ata--Kazakhstan has become a large producer of hybrid corn seed, having increased its harvest of such seed by more than one and a half times during the years of the five-year plan. The last consignments bearing the stamp "For Spring Fields" have been shipped from its grading and drying plants to farms in Belorussia, Armenia and the republics of Central Asia. Approximately 4,000 tons of high quality seed were shipped. The conversion of the branch over to an industrial basis aided the republic's farmers with regard to raising the gross yield of seed. [Text] [Moscow GUDOK in Russian 18 Mar 80 p 1] 7026

MOISTURE RETENTION WORK--Belgorod--To retain as much of the thaw moisture as possible out on the fields. The oblast's farmers, who have commenced the mass ridging of snow crosswise to the slopes, are presently engaged in solving this task. Hundreds of units are being used for this work. The plans call for thaw water to be retained on hundreds of thousands of hectares. [Text] [Moscow GUDOK in Russian 18 Mar 80 p 1] 7026

VINEYARD PREPARATION--ODESSA--The vineyards in the northern Black Sea region endured the winter very well. Such was the conclusion drawn by specialists following an inspection of fruit-producing plantations, an area of approximately 80,000 hectares. Taking advantage of the fine weather, hundreds of teams and brigades moved out into the vineyards. They have commenced pruning and shaping the bushes, installing trellises and procuring cuttings. [Text] [Moscow GUDOK in Russian 18 Mar 80 p 1] 7026

SOWING OF ALFALFA--Baku--The machine operators in Sabirabadskiy Rayon in Azerbaijan have moved hundreds of sowing units out onto the fields. Alfalfa seed is being planted in the soil. This crop is being used extensively in crop rotation plans as a predecessor crop for cotton plantings. [Text] [Moscow IZVESTIYA in Russian 19 Feb 80 p 1] 7026

SPRING SOWING PREPARATIONS--Rostov-na-Donu--The machine operators in the oblast's largest grain growing rayon, Sal'skiy Rayon, have moved all of their soil cultivation and sowing equipment up to the very edge of the spring fields. Their goal -- with the onset of good weather, to carry out their sowing operations in just 30 hours. All of the necessary measures have been taken in this regard. The equipment underwent an additional inspection. Equipment movement routes were developed in all areas.

Approximately 300 sowing units have been staffed with sufficient personnel for double shift operations. During the final year of the five-year plan, the rayon's workers will produce no less than 500,000 tons of select grain. [Text] [Moscow GUDOK in Russian 11 Mar 80 p 1] 7026

SKILLED MACHINE OPERATORS REQUIRED--Kurganskaya Oblast--The fields in the trans-Urals region are still covered with snow. However, motor vehicle trains are beginning to appear more frequently on the highways -- they are delivering shiny new and freshly painted tractors, sowing machines and cultivators to the farms. The time is not far off when the machines will be moved out onto the fields. The fate of the future harvest is greatly dependent upon the individuals who will operate these machines. The party, soviet and economic organs must make more extensive use of the experience of leading farms. During the final year of the five-year plan, the Kurgan grain growers have vowed to sell 1.79 million tons of grain to the state. This is not an easy task. And it can be carried out successfully only if each kolkhoz and sovkhoz is supplied with skilled cadres of machine operators. [Text] [Moscow PRAVDA in Russian 25 Feb 80 p 2] 7026

PLANNED HARVEST YIELDS--"Competing in honor of the 110th anniversary of the birth of V.I. Lenin, the machine operators in our brigade completed their work of repairing equipment for the spring field operations. The decision has been made to sow the early grain crops in just 2 days and obtain 35 quintals of grain per hectare, sugar beets -- 270 quintals and sunflowers -- 21 quintals." -- I. Domnich (brigade leader of a tractor brigade at the Kolkhoz imeni Lenin and holder of two Orders of Lenin, Krasnogradskiy Rayon, Khar'kovskaya Oblast). During this spring period, the Editorial Board is receiving many such reports from kolkhozes and sovkhozes. The farmers, in carrying out the decisions handed down during the November 1979 Plenum of the CPSU Central Committee, are devoting a great amount of effort towards ensuring that the spring field work is carried out during the best periods and in a high quality manner, thus establishing a good foundation for the future harvest. In the southern regions of Kazakhstan, Kirghizia, Tadzhikistan and Turkmenistan, the spring grain crops are already being sown and potatoes planted. Field work is in progress in the southern part of the Russian Federation: the farmers are applying top dressings to their winter crops and carrying out harrowing work. The farms in the central and northern regions of the country have many concerns at the present time -- the preparation of seed and the sowing and soil cultivation equipment continues here. [Text] [Moscow TRUD in Russian 14 Mar 80 p 1] 7026

SELECTIVE TOP DRESSINGS--Tambov--The oblast's machine operators have commenced applying a selective top dressing to their winter wheat and rye. This year the oblast's winter crops were planted on an area unprecedented in size -- 580,000 hectares. According to an evaluation by specialists, the plants endured the winter very well. [Text] [Moscow GUDOK in Russian 18 Mar 80 p 1] 7026

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STATUS OF EQUIPMENT SUPPLY, REPAIR IN LIVESTOCK FARMS

Moscow SEL'SKAYA ZHIZN' in Russian 8 Feb 80 p 2

[Article by A. Zholobov, Ryazanskaya Oblast: "If There is an Accident at the Complex"]

[Text] Production-technical services of poultry factories and large farms require radical improvements.

There was an accident at the broiler factory--the electrical motor in the boiler broke down. There was no spare motor. The poultry workers tried to find one somewhere in the oblast, to no avail.

In the local rayon sel'khoztekhnika [Agricultural equipment association] they were told directly: "Don't count on our bases. Not only do we not stock electrical motors for boiler houses, we don't even have simple couplings. Please turn to the oblast office of Gossnab." Here workers were given advice to seek the required electrical motor in other organizations. Two weeks later the suppliers of the poultry factory find one with great difficulty somewhere in the Urals. All of this time the boiler room operated at half its capacity without providing the required heating for the poultry house. As a result weight gain dropped and a plague began to take the chicks.

A similar thing occurred at another enterprise in Ryazan', the Iskra Hog-Raising Complex. Here right before the onset of cold weather the electrical motor of the boiler room's smoke pump broke down. A special winding wire was required. No matter where they turned, whether to the oblast sel'khoztekhnika or Gossnab, they were refused.

It should be noted that the problem of material-technical supplies for poultry factories and livestock complexes is not a local one.

"It involves the entire branch," says the director of the mechanization administration of RSFSR Svinprom [Hog-Raising Association], Yu. M. Revyakin. "In our republic alone there are now 283 hog-raising complexes in operation with a capacity of 1,200 to 12,000 tons of products annually. Over a period of 7 years the enterprises of Svinprom have almost doubled meat production."

Such changes have occurred in other republics. In the country in general, reported Glavzhivprom USSR [Main Administration of the Livestock Industry], 14 percent of total pork and beef produced by the branch and one third of the profits from sales come from state livestock complexes.

However, the return on capital investments and the increase in meat could be more significant if all of the almost 1,000 complexes within the system of Glavzhivprom,on which almost 2 billion rubles were spent, were operating at capacity. This has not yet been achieved. One of the reasons for this is the shortage of material-technical supplies. It turns out that enterprises built facilities and equipped them with modern equipment, but did not worry about operating conditions.

What are modern meat enterprises like? Let us again use the Iskra complex near Ryazan' as an example. It is supposed to fatten 108,000 hogs and supply the state with 11,000-12,000 tons of meat annually. This large, highly-mechanized enterprise has thousands of units of various machines, equipment and means of automation. A hundred kilometers of water and heat line networks have been installed, as well as 16 kilometers of feed-distribution lines. In the shops, 1,500 fans and over 2,000 electrical motors have been installed. There is a great deal of other equipment, but it is operating in conditions that are far from ideal.

Of course, we cannot do without a solid repair-operation service here. The complex has shops for the repair of electrical motors, start-regulating apparatuses and control-measuring equipment where experienced personnel is employed. This service is responsible for work related to operating the equipment, for technical checks of equipment and for its repair.

In addition to this service the oblast sel'khoztekhnika is attempting to create a second--a specialized department for technical services to complexes and poultry factories. But there is no one to deal with bringing order to the system of supplying them with repair-operations materials, spare parts and units.

Practical experience shows that there are many components and networks of mechanisms and equipment that wear out more quickly than normal. Thus, the feed conduits of the small ring serve for no longer than 2-3 years; pumps, bearings and V-belts in the ventilation and feed-distribution systems last 1 year. During this time every tenth electrical motor breaks down. Every other year it is necessary to change the entire soft cable in the feed distributors, some of the feed conduits and air channels.

However, no one but the livestock farmers have taken this into account. In supply organizations poultry factories and complexes are treated as stepchildren. They do not receive what they need for the repair-operations services, and for the precise operation of the meat conveyor. Judging by the information that was given to Glavzhivprom USSR, the orders that are placed by complexes for pipes and metal are filled by only 12 percent. Some materials are not issued at all, such as varnish-paint products, various cables, winding wire, lock accessories, auxiliary equipment for boiler rooms, pumps of all types, removable parts for the operations safety apparatuses, control-measuring equipment and automatic equipment.

Enterprises age, naturally, and mechanisms and equipment wear out. The need for spare parts and repair materials increases. Some complexes have been in operation for 6-7 years, yet there has not been a noticeable improvement in technical services. There really can be no changes as long as Gosplan USSR does not serious consider their requests and continues to program the supply of repair materials in lesser volumes and assortments than necessary.

Union ministries of agriculture and the State Committee of Sel'khoztekhnika have developed and presented to the agricultural department of USSR Gosplan new, scientifically based norms by which orders for material-technical supplies for enterprises of the meat industry must be formulated. All data is first studied, corrected with a consideration of the experience of operating complexes and the recommendations of scientific organizations and then coordinated with the republic's planning organs.

But USSR Gosplan, which previously had insisted on the necessity to develop such norms, has suddenly become opposed to them. References are made to the fact that the volume of deliveries of spare parts and materials for livestock raising enterprises should be determined not on the basis of actual need but on that of the average per 1,000,000 rubles of all fixed agricultural capital.

"We should not be directed by such average norms," says the director of the division of mechanization and electrification of USSR Glavzhivprom, A. P. Sindeyev. "They are convenient for calculations but not for actual operations. Complexes comprise a small proportion of the total volume of fixed agricultural capital--3-4 percent--although they are large producers of products. Consequently, for this insignificant portion of fixed capital they will be allocated an insignificant share of spare parts and materials for repair and operational needs. This will not solve the problem."

Now let us turn to the assortment of spare parts. Many spare parts are required--there are up to 45,000 parts for machines and equipment produced by the enterprises of many ministries and departments to provide technical supplies for poultry factories, livestock complexes and farms. There is a nomenclature list and orders are filled for only one-third of these. Such documentation is absent for the rest of the parts, especially for pump, boiler and compressor installations and for control-measuring equipment. Because of this complications arise when orders are formulated and defended, and when controls over their fulfillment are instituted.

Consideration should also be given to how best to organize the repair service and to efficiently utilize spare parts. Most specialists and practicians do not feel it is expedient to create special Goskomsel'khoztekhnia divisions for technical services through complexes, to have cadres of repair workers and repair shops change hands, as has been done in some oblasts. It is best to retain them in complexes where they are. In such instances the repair service, which is directly subordinate to the directors and specialists of the enterprise, together with all livestock farmers has the responsibility for production and production output.

The creation of a dependable technical service will enable the meat conveyor to operate without interruption.

8228
CSO: 1824

SOUTHERN BRANCH OF VASKHNIL MAKES RECOMMENDATIONS

Kiev SIL'S'KI VISTI in Ukrainian 6 Mar 80 p 2

[Article by V. Kalyta on: "Working the Soil, Scientist and Farmer"; report on annual VASKHNIL meetings, Southern Branch]

> [Text] As noted at the November (1979) Plenum of the CC CPSU by the CC CPSU General Secretary, Supreme Soviet Presidium Chairman Comrade L.I. Brezhnev, in solving actual problems facing the national economy particularly at the threshhold of the 11th Five-Year Plan, the party counts on active scientific help. One of the important areas of scientific application is agricultural production. The general annual meeting of the Southern Branch of VASKHNIL [All-Union Academy of Agricultural Sciences USSR] was devoted to an analysis of accomplishments the goals of Ukrainian and Moldavian scientific organizations in the light of the November (1979) CC CPSU Plenum and the December (1979) CC of the Ukrainian Communist Party Plenum.

The extent of research conducted by our scientists is wide. The main investigative directions are development of measures towards further agricultural and livestock-raising intensification; raising soil fertility; cultivation of new, more productive varieties and hybrids; improvement of cropping technology; problems in raising cattle productivity; extension of specialization and production concentration on the basis of interfarm cooperative and agro-industrial integration; ways of increasing the effectiveness of the machine-tractor yard; etc.

The returns are noticeable. The republic's farms accepted 180 scientific plans to be put into effect with an economic result of above 660 million karb.

Assistance by the republic's plant breeding centers is especially noteworthy. Last year they delivered to the state strain-testing stations 103 new grain varieties, grain hybrids, industrial, oil and feed crops, 35 of which were regionalized. Nineteen new varieties of fruit-berry crops are being tried and four grapes. Seven lines of agricultural animals and five poultry lines have been bred and prepared for approval.

Farmers rated highly new winter wheat varieties such as "Myronivs'ka-25," "Odes'ka napivkarlykova," "Kharkivs'ka-81," spring barley "Odes'kyy-82," alfalfa "Rayduha," "Yuzhanka" and a number of others. The new wheat varieties are noted for their high biological potential, calculated at 85-90 quintals of grain per hectare, spring barley 70-75 quintals and alfalfa 6-8 quintals of seed per hectare.

Rural workers are quite familiar with the fruitful activity of the collective from the Myronivs'kyy Scientific Research Institute on Selection and Wheat Seed Production, the All-Union Selection-Genetic Scientific-Research Institutes: Livestock Raising in the Forest Steppe and Woodland Areas, and Irrigated Agriculture. In recent years the Poltava Scientific Research Institute has improved its work breeding a new variety of Poltava meat hog whose numbers are growing rapidly on pedigree cattle raising farms in Poltavskaya, Khersonskaya, Chernovitskaya and a number of other oblasts. This young stock reaches 100 kg of live weight in 185 days, the average daily increase during fattening amounts to 700 grams with feed expenditures of 3.7 quintals of feed units per quintal of weight growth.

A lot of work has been done in the development and production review of the effectiveness of systems and methods of soil cultivation in the various zones of the republic. The possibility of decreasing the extent of deep plowing in crop rotation has been proved as well as the expedience of substituting plowing in some cases with surface tilling. This is one of the effective methods for more complete utilization of soil moisture, which also decreases work and cost expenditures in area preparation.

In combatting water and wind erosion the development of the soil preservation system of soil cultivation, practiced on an area of over 3 million hectares, has achieved great importance. It was estimated that by introducing this system along with other anti-erosion measures farms would be able to harvest additionally almost two million tons of grain.

The scientific potential in feed production increased markedly. Methods were developed to establish highly-productive hayfields and pastures, providing high-quality grass stands on low-productivity lands in one to two years, increasing meadow and pasture land productivity 4-6 times.

Scientific organizations dealing with livestock raising have also made important contributions. In the dairy cattle breeding branch, in addition to important pedigree work, new progressive milk production technologies are being developed and put into effect. Scientific collectives together with agricultural specialists participated actively in the introduction and improvement of line production sections on dairy product farms, approved by the CC CPSU. A series of effective replacements of milk for calves were proposed as well as mixed feed for young stock, methods of obtaining a protein vitamin concentrate from green plant juice, etc.

But production inquiries are continuously on the rise. This places also higher demands upon the scientific collectives. Noting work achievements, the speaker, chairman of the Southern Branch of VASKHNIL Academician H.O. Bohdanov and those comrades who took part in the discussion problems and goals which still face scientific collectives.

One of the most important goals remains the increase of grain production. Much needs to be accomplished, especially by plant breeders. The concern is not only for increasing new variety and hybrid productivity, but also improving their quality indices. More goal-directed work is needed in breeding hardier varieties of winter wheat, rye, short-stemmed barley, early-ripening corn hybrids and also feed crops, grain-pulse crops, buckwheat, which would meet the demands of intensive farming.

Scientists should assist the rural workers more actively in increasing sugar beet, sunflower and other crop production, and in the introduction of industrial technology in corn raising, which not only provides for great possibilities of a gross grain-harvest increase but also will markedly reduce labor losses.

Serious talk was held about the problems of further livestock-raising development. Specifically, it dealt with increasing numbers of livestock, especially cows, and improving herd renewal.

Great potential in the further growth of this branch is to be found in the intensification of feed production. First in consideration should be quality indices, especially the protein problem. Fulfillment of measures developed by scientists and specialists to increase the production of feed protein, approved by the CC of the Ukrainian Communist Party and the Council of Ministers of the Ukr SSR, permitted its slight increase in feed. But not all possibilities have been utilized in this respect. Further improvement lies in the extension of the soybean sowing area, peas, lupine, perennial grasses with a simultaneous increase in their productivity. In this kilkhozes and sovkhozes will benefit from new scientific recommendations on the structure improvement of feed crop sowing, their cropping and seed production technology. Scientists should also concern themselves with the improvement of meadows and pastures, repeated and intermediate sowing, research connected with changing feed production to an industrial basis, the effectiveness of which is underscored by the Kiev and Vinnitsa area experience. Rural workers expect from scientists both an improvement in procurement technology, feed harvesting and also promising recommendations on sharply cutting back nutrient loss in them. More active assistance is also needed in the accumulation of seed production for feed purposes.

Along with increasing the number of cattle, increased productivity remains an important goal. Success ingredients in this important matter are sufficient feed plus suitably organized pedigree work. Science has to help in creating highly productive herds adjusted to industrial technology conditions, utilize more fully through evaluation an effective method of pedigree work such as the use of breeding areas, checked with respect to offspring quality. In hog breeding a three-type crossbreeding should be encouraged.

Thus, scientific planning at the institute or research station is only one half of the issue. It is important to bring it to a logical conclusion, application and final result. Scientific collectives working on the basis of agreements on creative cooperation with kolkhozes and sovkhozes regulating the commitments of each, have the right approach.

A lot could be gained also from a more clear-cut coordination of agricultural scientific organizations with institutes at the Ukrainian Academy of Sciences, which offer many possibilities in developing fundamental theoretical problems.

Meeting resolutions were prepared on the basis of thoughtful exchange and scientific recommendations, specifying concrete ways to further increase research effectiveness and strengthening the ties between science and production.

Meeting participants included: Politburo member, Central Committee Secretary of the Ukrainian Communist Party M.M. Borysenko, Deputy USSR Minister of Agriculture, doctor of agricultural sciences V.S. Shevelukha, Vice-president of the Ukrainian Academy of Sciences K.M. Sytnyk, chief of scientific department of the Moldavian SSR Ministry of Agriculture S. Ye. Kylymar, Academician-secretary of the livestock-raising section VASKHNIL O.P. Kalashnykov, supervisors of various scientific organizations, leading scientists, and agricultural workers.

The following participated in the work of the annual meeting: deputy chairman of the Ukr SSR Council of Ministers I.D. Stepanenko, chief of the agricultural section of the Ukrainian Communist Party Central Committee A.D. Kovalenko, ministers, responsible workers of the CC of the Ukrainian Communist Party and the Ukrainian SSR Council of Ministers, Ukrainian SSR State Planning, and workers of a number of ministries and departments of the republic, and leaders in agricultural production.

9443
CSO: 1811

REGIONAL DEVELOPMENT

RESEARCH TO IMPROVE RYE PRODUCTION URGED

Kiev SIL'S'KI VISTI in Ukrainian 29 Mar 80 p 2

[Readers respond to SIL'S'KI VISTI article "Zhytniy Kolos" which appeared in issues dated February 26 and 27, 1980]

> [Text] An article by M Puhovytsya entitled "Zhytniy Kolos" [Rye Spikes] was published in SIL'S'KI VISTI (Nos 48, 49) under the heading "Reservy Khlibnoho Polya" [Grain Field Reserves]. It dealt with the reasons for decreasing the sowing area under rye, low crop productivity, and why its plant breeding is behind production needs. This article prompted many responses. Some of them are printed below.

"If the Efforts Were United" by A. Mayster, plant breeder, candidate of agricultural sciences, Volynskaya Oblast.

In the article "Zhytniy Kolos" a fair question was raised about what hinders the republic's plant breeders in creating new highly-productive varieties of winter rye.

Quite a few difficulties in rye spike formation are conditioned by this cereal's own peculiarities. Some crops lend themselves to plant breeding work, some do not. Winter crops belong to the latter group, it is much more difficult to work with them than with spring crops, because in the one month provided by nature between harvesting and sowing, an analysis of plant breeding material has to be done, it must be threshed and the seed prepared for sowing (spring crop breeders do this work at eight months). At the same time, it is essential to fertilize allocated areas, to plow them, and complete the pre-sowing working of the soil. In addition, rye plant breeding material must also be allocated to many isolated plots, the distance between them amounting to kilometers. These are the so-called objective difficulties.

Then there are subjective difficulties. Plant breeders need not be envied when they deliver to state trial a new rye variety. Threshing, cleaning and sending seed to strain-testing stations must be accomplished within a short period by one or two scientific workers and as many laboratory assistants. Last year we received for trial purposes a new variety "Luchanka"; this year another more productive variety could be tried. But that is only wishful thinking. We would not be able to fulfill this work, because we do not have enough people, and there is no good winnowing technology.

In state strain testing a new variety can show its potential only if its agrotechnology is worked out; the need is especially felt now because short-stemmed strains are being received for testing whose agrotechnology has not yet been developed.

In order to introduce a new strain quickly, seed production must be simultaneous with delivery to state strain testing. These problems are again shouldered by the one or two scientific workers.

There would be fewer difficulties if the complex research mentioned in the article were applied more extensively. The laboratory of grain technology could develop the agrotechnology for a new strain, seed production could be handled by a seed production section of the origi ting organization. These subsections are to be found in all research stations; unfortunately, however, this work division is not practiced.

The All-Union Institute of Selection-Genetics and the Myronivs'kyy Scientific-Research Institute on Wheat can be used as examples of good organization of the selection process. Not only because they have powerful phytotrons and climatic cells, but also because many participate in breeding new strains. In those institutes the work of all subsections is directed towards maximal provision of plant breeders' needs. This concern pays for itself a hundred times.

As a crop, winter rye today is in a difficult period: sowing areas are decreased, productivity is low and increasing slowly. The situation can change drastically, however, if plant breeders provide new short-stemmed highly-productive strains. The possibilities for this exist since the potential of winter rye is higher than of wheat. It is more resistant to frost, drought and diseases, less demanding to soil type, its fertility and predecessors. In like conditions winter rye in the strain-testing stations of our country yields more than winter wheat.

Yet, small and varied groups work on breeding new varieties of rye in organizations subordinated to various departments. The efforts of spike breeders are poorly coordinated, and lacking complex research, many important questions are not developed at all.

Providing all scientific-research centers dealing with winter rye selection with the essential number of people, contemporary technology, climatic cells, constructing phytotrons in each is, of course, a complicated goal. But the solution may be found by uniting all efforts.

"A Valuable Crop" by H. Borysenko, retired agronomer, Dniepropetrovskiy Rayon, Dniepropetrovskaya Oblast.

Many residents of our settlement "Pidhorodne" read the article "Zhytniy Kolos" with satisfaction.

Without underestimating the role of wheat at all, it can be said that bread made of rye flour contains many life-important mineral salts, especially calcium, magnesium, zinc, etc.

Rye does not require special soil, is winter hardy and grows in a temperature of one-two degrees. It has long been cultivated not only in the wooded zone, but also in the republic's chernozem of the forest-steppe and steppe areas. The crop grew well in the Dniepropetrovsk, Zaporozhe, Kherson and Krym areas where it was brought by settlers from the northern regions. In droughty years, which occur often in the south, rye served as a promising insurance crop.

In addition, the cereal is an excellent predecessor for melon crops, especially when fields were cultivated with surface tilling equipment prior to sowing. It has the most developed root system of all spike crops and renews soil structure well.

Every aspect of rye considered proves that it is a valuable and beneficial crop. Therefore, areas allocated to it should be expanded.

"The Harvest Will Pay for the Efforts" by I. Vashchenko, I. Halepa, V. Mykhaylenko, S. Panasets'kyy, M. Kholyava, kolkhoz workers, Borznyans'koy Rayon, Chernigovskaya Oblast.

In our village "Khovmy" after the war rye almost lost its meaning in crop rotation. It supposedly does not provide a good harvest. If sufficient attention were paid to this crop in the woodland area, there would be a large harvest.

We are grateful to the paper for the article "Zhytniy Kolos" and will hope that rye will again take its place in crop rotation. Scientific workers, and managers of the republic's oblast and rayon organizations need to pay more attention to this valuable grain crop.

9443
CSO: 1811

TILLING AND CROPPING TECHNOLOGY

MEASURES FOR RAISING RICE HARVESTS IN DAGHESTAN

Moscow SEL'SKAYA ZHIZN' in Russian 23 Mar 80 p 1

[Article by Yu. Semenenko (Krasnodarskiy Kray): "Rice of the Kuban'"]

> [Text] This year the Kuban' farmers plan to obtain 1 million tons of rice. Approximately 670,000 tons of this amount will be sold to the state. The kray party organization and all workers in Krasnodarskiy Kray are directing their efforts towards carrying out this task.

In carrying out this great work, a great amount of reliance is placed upon the land reclamation specialists. Fine work is being performed by the collectives of Glavkuban'risstroy subunits. Throughout the winter, they were busy installing and modernizing irrigation systems. Their work tempo increased in the spring and thus, just as planned, up to 220,000 hectares will be added to the sowing areas for the rice check plots.

During the autumn period, 540 rice growing teams, jointly with the machine operators, carried out deep fall plowing on the entire area and fertilized it. Efficient work was carried out in connection with personnel training, seed preparation, the repair of equipment and hydraulic engineering installations and the cleaning of the irrigation and collector-drainage networks. Taking into account the increase in the rice growing areas, the state allocated additional fertilizers for them. No less than 18 quintals per hectare are to be applied. New mobile and stationary pumping stations, tractors, combines, plows and other machines have all made their appearance. At the present time, the assembly and testing of new equipment are nearing completion and fertilizer is being delivered to the tracts and supplied to the check plots.

On the eve of the spring field operations, at all of the rice growing kolkhozes and sovkhozes, meetings of the party-economic aktiv were held, with members of the bureau of the kray party committee and the executive committee of the kray soviet participating in them. The status of affairs in rice growing was analyzed in a business-like manner during these meetings and the means and methods for achieving the planned goals were outlined. The schools of leading experience for field team leaders and irrigation specialists proved to be of great assistance. They were of particular benefit to those who in the past were unable to cope with their responsibilities. All of this made it possible to develop effective tactics for each specific field.

The collective of the Kuban' Training-Experimental Farm, which annually obtains high harvests and which is a type of training ground for leading experience, became the leader in the competition for rice growers. Here the decision was made to harvest not 70, as earlier planned, but rather 75 quintals of rice grain from each hectare.

The check plots of this farm commence immediately beyond the boundaries of Krasnodar, at the bend in the Kuban' River. Work is presently being carried out at a feverish pitch here. The booms of the excavators move up and down in a methodical fashion as they remove silt from the irrigation network. The scrapers move rapidly alongside the check plots in a business-like manner as they improve upon the ridges and dams, while the tractors rumble along under a strain as they replow the autumn plowed land. The sowing units, rollers and other equipment have all been made ready for operations, equipment which before long will be placed in operation. First class seed has been procured for the entire area.

An object of constant concern by the rice growers is that of raising the fertility of the soil. At the present time, one sees hundreds of motor vehicles, tractors and self-propelled undercarriages on the roads that are loaded with organic and mineral fertilizers. They are being transported to the check plots, where they are immediately placed in the soil. Against a plan calling for 60,000 tons, more than 50,000 tons of organic fertilizers have already been delivered in behalf of this year's crops by the fertility detachment at the Sovetskaya Rossiya Kolkhoz in Krasnoarmeyskiy Rayon. A powerful tractor with a wagon in tow is driven up to the loader by Yuriy Sushko. Three minutes later the machine is sent off to a check plot and its place is taken over by a tractor operated by Aleksandr Kuzhil'niy. The kolkhoz machine operators are presently delivering organic fertilizers to fields located on lowlands. Approximately 50-60 tons of organic fertilizer are being applied to each hectare and this will improve substantially the reclamative status of the lands.

Mole plowing ensures a high return when carried out on such tracts of land. The mole drains are installed using special machines. One such unit is operated by machine operator Dmitriy Kochura. He has already tilled 65 hectares using a mole plow. The drains are installed crosswise to the check plots, so as to ensure that the water which warms the arable land gathers in the channels cut along the contour of the check plots and runs into the collector network through the discharge headstall.

"The soil is damp and lends itself very well to mole plowing" commented the machine operator, "no less than 500 hectares will be tilled using this method at the kolkhoz."

A number of operations are nearing completion on the farm: ridging the intra-check plot channels, repairing the dams and slopes of canals. The irrigation workers also have many concerns. There is still no water in the canals; the rice growers are removing weeds from them. This work has been carried out on 340 hectares, against a plan calling for 387 hectares. Current and capital repair work on the hydraulic engineering installations is nearing completion.

Krasnoarmeyskiy Rayon is the flagship for rice growing in the Kuban'. This valuable groat crop will be grown here this year on 71,000 hectares -- 11,500 more hectares than last year. The decision has been made to obtain 55 quintals of rice from each hectare.

"The rice growers on all of the farms" related the 1st secretary of the rayon party committee N.I. Gorovoy, "have joined actively in the competition to fulfill the obligations. Just as in the past, the example is being set by the initiators of the movement to obtain the highest yields of the "white grain." A principal factor is the mass nature of the competition. Approximately 900 field team leaders and irrigation specialists are participating in it and they represent approximately 18,000 hectares. They have vowed to obtain 75-100 quintals of grain from each hectare."

Here, on the check plots of rice growing innovators, many efficient methods have been developed for the cultivation of rice, methods which are now being introduced extensively on fields throughout the rayon. This includes a system of deep drainage which radically improves the reclamative status of land, the ridging of intra-check plot channels using special hoes and the sowing of rice during very early periods, with deep placement of the seed for use on 6,000 hectares, and with local applications of mineral fertilizers -- on 20,000 hectares. This was 10 times more than the figures for last year. The increase in yield is 5 quintals per hectare.

Fine results are being obtained from grading work carried out under levelling control procedures. Geodetic instruments are being employed for smoothing out the surfaces of the check plots; such work will be carried out this year on one half of the area under crops. Mole plowing of the check plots has already been carried out on 3,100 hectares.

A great amount of work has been carried out throughout the rayon in connection with personnel training. Practically all of the higher and middle echelon leaders and specialists, field team leaders and irrigation specialists have raised the level of their knowledge through courses undertaken at the Krasnoarmeyskiy Sovkhoz or at schools for leading experience.

Before long the sowing units will be moved out onto the fields and the canals will spring to life as water is added to them. The Kuban' rice growers are doing everything possible to ensure that their high obligations are fulfilled in an honorable manner.

7026
CSO: 1824

MINISTER DISCUSSES INCREASING RICE HARVEST IN DAGHESTAN ASSR

Moscow SEL'SKAYA ZHIZN' in Russian 27 Mar 80 p 2

[Article by Sh. Mamedov, Minister of Agriculture for Daghestan ASSR: "In the Terek River Valley"]

> [Text] What should be done in order to achieve a considerable increase in rice production in Daghestan?

Rice in Daghestan is by no means a new crop and formerly it was cultivated with almost no use being made of agricultural equipment. The saline land was leached out to only a weak degree and this led to their secondary salinization. But in recent years the construction of engineering rice systems was begun in Daghestan, with rice crop rotation plans being mastered at specialized sovkhozes in Kislyarskiy, Babayurtovskiy, Tarumovskiy and Khasavyurtovskiy rayons. Eleven specialized sovkhozes are presently supplying more than 80 percent of the republic's gross production of rice.

We are firmly convinced that rice is the most promising grain crop for Daghestan. In addition, it is of tremendous importance from a land reclamation standpoint, it promotes the use for agricultural purposes of water-logged land and land which was formerly barren and saline and it permits the development of such land for the cultivation of other agricultural crops.

During the years which have elapsed since the May (1966) Plenum of the CPSU Central Committee, engineering rice systems have been built on 33,000 hectares throughout the republic. This has made it possible to develop large tracts of land which were formerly unproductive. At the Gor'kovskiy, Put' Lenina and Oguzerskiy sovkhozes in Kizlyarskiy Rayon, owing to modernization of the Staro-Terechnaya irrigation system, success was achieved within a comparatively short period of time in raising the cropping power of rice by twofold and its gross production by fourfold.

A considerable amount of experience has been accumulated throughout the republic in obtaining high yields of the white grain. Field teams on farms in Taromovskiy Rayon have been obtaining 40-45 and more quintals from each hectare and, as a result, the tasks for 4 years of the five-year plan for the production and sale of rice to the state have been fulfilled successfully. The farms in Babayurtovskiy Rayon also fulfilled their plans for the 4 years.

The "secret" which enabled these collectives to obtain high rice yields lies in strict observance of the complex of agrotechnical methods employed for cultivating the crop. Thus, for example, the team headed by A.N. Popovkinaya at the Put' Lenina Sovkhoz grew rice on 320 hectares of autumn plowed land, on 138 hectares of a perennial grass bed and on 232 hectares following spring plowing. In the spring, for the purpose of combating reeds, double replowing of the fields was carried out to a depth of 20-25 centimeters using plows with elongated plowshares and also double disking, levelling off and smoothing out operations. The Krasnodarskiy-424 variety was sown. The team obtained 47 quintals from each of 530 hectares and from 24 hectares -- 71 quintals of rice.

Nevertheless, the cropping power of the white grain continues to remain low for the republic as a whole -- 32-35 quintals per hectare. Last year, for example, it amounted to 31.8 quintals from each of 23,400 hectares.

The experience of leading workers underscores the fact that we have many reserves at our disposal for raising the effectiveness of rice production. Thus the republic's organs are devoting a great amount of effort towards ensuring that leading experience is made available to each farm. Seven and eight-field crop rotation plans have been developed and are presently being mastered at specialized sovkhozes, with alfalfa serving as the accompanying crop and fine predecessor crop for the rice. An indispensable part of the crop rotation plans is also a reclaimed field on which, during the summer, capital-restorative, levelling off and other types of work were carried out.

The total expenditures for 1 hectare of rice plantings, at sovkhozes throughout the republic, amount to 635-645 rubles, which is on a level with average expenditures for sovkhozes in the RSFSR. Although this is within the normal limits, we nevertheless believe that the expenditures can be reduced in the interest of lowering production costs. This can be achieved by realizing further improvements in the quality of the work being carried out.

Solutions must be found for a number of problems. First of all, there is the matter of weak water supply from the Terek River. Notwithstanding the acute shortage of irrigation water throughout the north Caucasus as a whole, not one regulating reservoir is as yet available along the Terek River. As a result, during the check plot flooding period the watering of other irrigated tracts ceases almost entirely and the runoff required to satisfy the needs of the fishing economy is reduced to a minimum. But even these measures do not make it possible to flood the rice more rapidly than within 50-70 days and this, beyond any doubt, adversely affects the germinative capacity of the seed and the density of the plant stands, which remained without water for an extended period of time. In addition, on tracts which were late in being flooded the rice is delayed in ripening and on some sectors it may not ripen whatsoever.

Another problem and one which is associated with the first one is that of the great muddiness of the Terek River water. During the initial flooding operation, it tends to fill up the rice check plots with mud and silt, thus bringing about a thinning out of the seedlings. The irrigation units also become severely clogged up with mud and silt and must necessarily be cleaned 2-3 times during the growing season. In behalf of the 1979 harvest alone, in Kizlyarskiy Rayon, cleaning of the intra-farm network was carried out in a volume of more than 2 million cubic meters. According to measurements carried out during the growing season at the Gor'kovskiy Sovkhoz by the Sevkavgiprovodkhoz Insitute, there were 34.46 tons of silt for every hectare of rice check plot, of which amount 33.71 tons remained in a check plot.

It should be emphasized that the silt and mud contamination is local in nature: a debris cone forms near the water discharge units and it distorts the relief to a severe degree, it creates vexing misalignments and it disrupts the maintenance of an optimum water regime -- the foundation for a high yield -- throughout the entire area of a check plot.

In this regard, we have become extremely anxious regarding the weak development of the production base for the aquicultural operational organizations. They are not coping with the increasing volumes of repair work to be carried out on the rice systems, particularly with the capital-restorative levelling off of the check plots. At the same time, land reclamation machines are not being allocated to the farms.

The technical level of the engineering rice systems still leaves a great deal to be desired. For example, anti-filtration measures are not called for in either the intra-farm or inter-farm networks. In addition to great losses of water, this also tends to raise the level of highly mineralized ground waters and it brings about a deterioration in the reclamative status of lands. On a number of farms, the open drainage called for in the plans for heavy textured soils is not ensuring desalinization of the land.

Old riverbeds -- Talovka, Staryy Terek, Borozdinka and Sullu-Chubutla -- adapted as primitive type canals, serve as the main water arteries to which the principal rice tracts "are attached." They are insufficiently equipped with water intake units and other hydraulic engineering installations and this precludes the possiblity of obtaining water from them at low levels and emergency situations develop when maximum discharges are obtained from them. At the present time, more than 10,000 hectares or 30 percent of the engineering rice systems require modernization.

Although rice suffers from a shortage of water along the lower reaches of the Terek River, in Khasavyurtovskiy Rayon a problem of another type prevails. Here the water of the mountainous Sulak River is very cold and thus the rice seedlings are severely depressed during their first month of growth. With regard to further expansion of the rice plantings, the problems concerned with the construction of sedimentation tank-heaters require examination.

The planning for aquicultural construction for the Staro-Terechnaya irrigation system, where more than 60 percent of the rice systems were installed, was carried out by one institute and that for projects of a production and cultural-domestic nature -- by another institute. This led to considerable production discrepancies and problems. At the present time, we must build additionally a grain thrashing floor, seed storehouses, cleaning and drying stations and other projects. Indeed, all of these facilities must be planned and built on a complex basis.

Special difficulties arise during the construction of cultural-domestic projects. For this reason alone, the average annual number of workers at the newly created Oguzerskiy Rice Sovkhoz in Kizlyarskiy Rayon was more than two times less than the number required. As a result, the workload per rice irrigation worker was very high at this and other farms throughout the rayon. At times, these individuals each service 100 or more hectares of rice plantings.

As is known, the five-year plans for the production and sale of rice are coordinated with the plan for placing rice systems in operation. However, during the years of the Ninth Five-Year Plan, the republic's rural workers were undersupplied with engineering systems by 5,500 hectares and during 4 years of the current five-year plan -- by 4,000 hectares. Thus the development of crop rotation plans was disrupted on the farms and sowing was tolerated on semi-engineering and primitive tracts, an action which adversely affected fulfillment of the task for the production and sale of rice to the state.

During the final year of the Tenth Five-Year Plan, the republic's rice growers are confronted by a responsible task -- to produce more than 100,000 tons and to sell no less than 70,000 tons of the "white grain" to the state. Towards this end, the plans call for rice to be grown on more than 26,000 hectares.

Approximately 100 teams will participate in the socialist competition for the successful fulfillment of plans. During the winter months, many rice growers underwent additional training in the interest of improving their knowledge. New experts in this work are being trained at the Daghestan Experimental Land Reclamation Station. Specific measures have been developed and approved by the republic organs for increasing rice production during 1980. In particular, these measures call for improvements in the supply of water and higher rates for the construction of rice systems. In the principal rice growing rayon, Kizlyarskiy Rayon, a new specialized northern PMK [mobile mechanized column] will be created for the capital-levelling off of rice check plots. Land reclamation will provide the impetus for creating new specialized rice growing sovkhozes based upon the Tal'minskaya irrigation system.

All of the resources of the republic's party organization, the agricultural organs and all Daghestan farmers are being directed towards the carrying out of the established tasks associated with the development of rice growing.

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BRIEFS

NEW RICE VARIETIES--In 1980, a new rice variety known as "Spal'chik" will be regionalized and enter production on an extensive scale. It was bred at the All-Union Scientific Research Institute of Rice (Krasnodarskiy Kray). "Spal'chik," the panicles of which have a high grain content, was exhibited at the "Grain" Pavilion. The variety is described by the following data. During the years in which it underwent testing at strain testing stations in Krymskaya Oblast, its average yield amounted to 80.5 quintals of grain per hectare and its highest yield -- 109.9 quintals. It is a midseason maturing variety and it ripens 5-15 days earlier than the extensively used "Krasnodarskiy-424" variety. "Spal'chik" has short stalks, with the height of the plants reaching 80-90 centimeters. When raised dosages of nitrogen fertilizers are applied, the length of the stalks increases to only a minor degree, but in return the grain content of the panicles increases and high resistance against lodging is retained. It has fine technological and groat qualities. "Spal'chik" is being regionalized in Krasnodarskiy Kray, the Turkmen SSR and in Krymskaya Oblast. In certain rayons in the Kuban' region, the new rice variety "Start" has revealed its advantages compared to the standard variety. It is also a short-stalked, highly productive and lodging resistant variety. Its technological and groat qualities are higher than average. During 1980, "Start" will be regionalized in a number of zones in Krasnodarskiy Kray. A sheaf of "Start" is also on exhibit at the pavilion. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 11 Mar 80 p 2] 7026

PRIMORSKIY KRAY RICE FIELD--The article bearing the title "Primorskiy Kray Rice Field" was published on 9 January. The Editorial Board has been informed by the secretary of the Primorskiy Kray CPSU Committee, Yu. Strokonev, that the article was reviewed by the kray party committee, discussed by the collectives of rice growing and land reclamation organizations throughout the kray and adjudged to be correct. Specific measures were outlined for increasing rice production, improving the culture of farming, the capital repair work being carried out on rice systems throughout the kray and personnel training and ensuring that the rice growing farms are supplied with mineral fertilizers, herbicides, toxic chemicals and equipment. Other measures were also defined for creating the conditions required for highly productive labor by the rice growers and also for increasing the return from reclaimed lands. In addition, the questions raised in the article will also be examined during a kray conference. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 28 Mar 80 p 3] 7026

PEAS FOR FORAGE PURPOSES--Valuable practical results have already been achieved from the special breeding of peas for feed purposes. Varieties have been created which are capable of developing strong fodder that is rich in protein. New regionalized varieties of fodder peas were presented for review at the "Feed" Pavilion. Here is some data on several of these varieties. The "Voroshilovgradskiy-29" variety of fodder peas was created at the Voroshilovgradskaya Oblast Agricultural Experimental Station. The station sent a sheaf of peas for review that had been obtained from a field which, in 1979, produced 389 quintals of fodder per hectare. This corresponds to 50 quintals of feed units containing 972.5 kilograms of digestible protein. Here is a notable comparison. In order to procure such a quantity of protein in oats grain, a yield of 114 quintals per hectare must be obtained and in the case of barley -- 120 quintals per hectare. As yet, nobody has achieved such high indices. Among those presented for review was the "Khar'kovskiy-74" variety of peas -- developed at the Ukrainian Scientific Research Institute of Crop Production, Selection and Genetics imeni V. Ya. Yur'yev. In 1979, it furnished 498 quintals of fodder, or 125 quintals of hay per hectare. The materials of the review underscore the great prospects for fodder peas as a valuable source of digestible protein. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 18 Mar 80 p 2] 7026

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END

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